

CLAIMS

What is claimed is:

1. A facet implant comprising:
 - a superior implant having an articulating surface and a fixation surface and being configured for placement on a superior articular facet;
 - a inferior implant having an articulating surface and a fixation surface and being configured for placement on an inferior articular facet and for interacting with a translaminar fixation mechanism, whereby the articulating surface of the superior implant and the articulating surface of the inferior implant are configured to interact; and
 - a translaminar fixation mechanism for securing the inferior implant to the inferior articular facet.
2. The facet implant of claim 1 wherein the translaminar fixation mechanism comprises at least one of: a translaminar screw, a bolt and a fixation pin.
3. The facet implant of claim 2 wherein the inferior implant is configured to interact with the translaminar fixation mechanism such that the translaminar fixation mechanism ranges from about 0 degrees to about 15 degrees offset.
4. The facet implant of claim 1 wherein at least one of the superior implant and the inferior implant comprises a surface fixation mechanism.
5. The facet implant of claim 4 wherein the surface fixation mechanism comprises at least one of: one or more pegs, one or more pips, ridges, one or more screws.
6. The facet implant of claim 4 wherein the surface fixation mechanism comprises multiple regions wherein each of the regions has ridges oriented in a different direction.

7. The facet implant of claim 1 wherein at least one of the fixation surfaces of the inferior implant and the superior implant has at least one of: a porous coating, a porous onlay material, a biologic coating, and a surface treatment.

8. The facet implant of claim 1 wherein the articulating surface of the superior implant is generally curved.

9. The facet implant of claim 1 wherein the fixation surface of the superior implant is generally curved.

10. The facet implant of claim 1 wherein the articulating surface of the inferior implant is generally curved.

11. The facet implant of claim 1 wherein at least one of the articulating surfaces of the inferior implant and the superior implant is composed of at least one of: cobalt-chromium alloy, ceramic, UHMWPE, pyrolytic carbon, and Ti/Al/V.

12. The facet implant of claim 1 wherein the inferior implant ranges from about 2 mm thick to about 15 mm thick.

13. The facet implant of claim 1 wherein the superior implant ranges from about 2 mm thick to about 15 mm thick.

14. A facet implant comprising:

a superior implant having a fixation surface and a generally curved articulating surface, the superior implant being configured for placement on a specifically prepared articulating surface of a superior articular facet; and

an inferior implant having a fixation surface and a generally convex articulating surface, the inferior implant being configured for placement on a specifically prepared articulating surface of an inferior articular facet, whereby the generally curved articulating surface of the superior implant and the generally convex articulating surface of the inferior implant being configured to interact.

15. The facet implant of claim 14 wherein at least one of the superior implant and the inferior implant comprises a surface fixation mechanism.

16. The facet implant of claim 15 wherein the surface fixation mechanism comprises at least one of: one or more pegs, one or more pips, ridges, and one or more screws.

17. The facet implant of claim 15 wherein the surface fixation mechanism comprises multiple regions wherein each of the regions has ridges oriented in a different direction.

18. The facet implant of claim 14 wherein at least one of the fixation surfaces of the inferior implant and the superior implant has at least one of: a porous coating, a porous onlay material, a biologic coating, and a surface treated to facilitate bone ingrowth.

19. The facet implant of claim 14 wherein at least one of the articulating surfaces of the inferior implant and the superior implant is composed of at least one of: cobalt-chromium alloy, ceramic, UHMWPE, paralytic carbon, and Ti/Al/V.

20. A facet implant comprising:

- a superior implant having a fixation surface and a generally curved articulating surface, the superior implant being configured for placement on a specifically prepared articulating surface of a superior articular facet;

- a inferior implant having a fixation surface and a generally convex articulating surface, the inferior implant being configured for placement on a specifically prepared articulating surface of an inferior articular facet and for interacting with a translaminar screw, whereby the articulating surface of the superior implant and the articulating surface of the inferior implant being configured to interact; and

- a translaminar fixation mechanism for securing the inferior implant to the inferior articular facet.

21. A method for providing articulating surfaces for facet joint articular facets comprising:

creating a space between a superior articular facet and an inferior articular facet;

using a rasp to prepare the articulating surface of the inferior articular facet for an inferior implant;

using a rasp to prepare the articulating surface of the superior articular facet for a superior implant;

placing the inferior implant on the inferior articular facet such that an articulating surface of the inferior implant is positioned on the articulating surface of the inferior articular facet;

placing the superior implant on the superior articular facet such that an articulating surface of the superior implant is positioned on the articulating surface of the superior articular facet;

wherein the articulating surface of the superior implant and the articulating surface of the inferior implant are configured to articulate with one another.

22. The method of claim 21 wherein each of the steps are repeated on articular facets on a contralateral side of the facet joint.

23. The method of claim 21 wherein the created space is begun with a curette.

24. The method of claim 21 wherein the created space is a space sufficient for using a rasp on an articulating surface of an articular facet.

25. The method of claim 21 wherein the created space ranges from about 2 mm to about 5 mm.

26. The method of claim 21 wherein multiple rasps of increasing thickness are used to prepare the articulating surfaces of the superior and inferior articular facets.

27. The method of claim 21 wherein the articulating surfaces of the superior and inferior articular facets are prepared such that the created space is increased to accommodate the superior and inferior implants.

28. The method of claim 27 wherein the articulating surfaces of the superior and inferior articular facets are prepared such that the shape and dimension of superior articular facet resembles the superior implant and the shape and dimension of the inferior articular facet resembles the inferior implant.

29. The method of claim 27 wherein the created space is increased such that it ranges from about 4 mm to about 15 mm.

30. The method of claim 21 wherein the articulating surfaces of the superior and inferior articular facets are prepared such that a bleeding bone bed is created to facilitate bone ingrowth.

31. The method of claim 21 wherein the inferior and superior articulating surfaces are prepared by the same rasp.

32. The method of claim 21 wherein at least one rasp is configured to cut when moving in a first direction, but not when moving in a direction opposite of the first direction.

33. The method of claim 21, further comprising securing the inferior implant to the inferior articular facet with a translaminar fixation mechanism.

34. The method of claim 33 wherein securing the inferior implant to the inferior articular facet with a translaminar fixation mechanism comprises using an aiming device to position the translaminar fixation mechanism.

35. The method of claim 33 further comprising drilling a translaminar hole for the translaminar fixation mechanism.

36. A rasp for preparing an articulating surface of a facet joint articular facet for an implant, the rasp comprising:

at least one handle;

a shaft connecting the at least one handle to a working end of the rasp;

and

a generally curved head at the working end of the rasp having at least one cutting surface configured to cut when the cutting surface is moved in a first direction, but not when the cutting surface is moved in a direction opposite of the first direction.

37. The rasp of claim 36 wherein the at least one cutting surface is configured to cut when the rasp is moved from the anterior of the facet joint articular facet to the posterior of the facet joint articular facet.

38. The rasp of claim 36 comprising two handles wherein the head is moved in a caudad direction by squeezing the handles and in a cephalad direction by releasing the handles.

39. The rasp of claim 36 further comprising fixation posts at the working end of the rasp.

40. The rasp of claim 39 wherein the fixation posts are configured for interaction with the lamina or a cephalad position of the superior facet.